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ABSTRACT

The development of a project to assess the effectiveness of schools in a large urban school district is described in this paper, with a focus on improving the validity of school effectiveness instruments. Purposes of the project were to develop a methodology for reporting effective school strategies and to generate a broader profile of schools' strengths and weaknesses. The steps taken to develop the instrument included: (1) the formation of a steering committee, which conducted a literature review and identified 11 characteristics of effective schools; (2) the development of surveys based on those characteristics; (3) a pilot test and revision of parent, teacher, and student instruments; and (4) a more extensive study, which analyzed 1,474 teacher, 5,889 parent, and 8,397 student instruments. A Spanish version was also pilot tested. An outcome was that 60 schools chose to use the instruments as a primary data source for strategic planning. Two tables present the results of the questionnaire data analysis. (LMI)

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PROMOTING SCHOOL IMPROVEMENT PRACTICES: DEVELOPING QUALITY EFFECTIVE SCHOOL ASSESSMENT INDICATORS

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by

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Background

The effective schools movement has been in effect for the last decade. Much research has been conducted on identifying characteristics and indicators of effective schools. Also many school districts have implemented projects to facilitate the improvement of schools and to generate assessment devices to assess the level of effectiveness in their schools. These devices have often taken on the form of surveys of teachers, parents, and students. However, one criticism of these instruments has been the lack of emphasis that has been placed on determining the validity and reliability of the instruments. The purpose of this paper will be to describe the development of a project to assess the effectiveness of schools in a large, urban school district with particular attention paid to the development and validation of the instruments used to assess school effectiveness.

This project was undertaken in the district for two purposes. The first purpose was to develop a method of reporting information to schools to help implement and improve effective school practices. The district was rather late in adopting effective schools as a project as other districts throughout the United States had already developed projects. However, it was felt that the district could take advantage of a substantial body of research on effective practices and then concentrate on improving the assessment methodology. There was also a second underlying purpose for the development of this project and that was the desire to provide information to schools about their effectiveness based on something other than just test scores. By providing this information to schools on the strengths and weaknesses of their effectiveness, schools could highlight their strengths and plan activities to improve their weaknesses.

Steps In Developing the Instrument

The first task for this project was to select a steering committee on effective schools. Nominations of principals and district-level staff were selected from appropriate administrators for elementary and secondary education. The committee was then formed and consisted of three elementary principals, three secondary principals, an elementary director, and a secondary director. Next, the committee appointments were reviewed and approved by the superintendent. The committee was later expanded to include a parent representative and a community representative. A literature review of effective schools research was conducted and presented to the steering committee. Much material on the subject had accumulated and the review was very thorough. Only findings that appeared three times in the literature search were used. These findings were then grouped into common domains and presented to the committee. At the next meeting, committee members brought their own materials and presented them to the committee. After reviewing all available materials, 11 characteristics of effective schools were developed and reviewed by the committee. The characteristics agreed upon were as follows: 1) Instructional Leadership, 2) Clear and Focused Mission, 3) Safe and Orderly Environment, 4) Positive School Climate, 5) High Expectations, 6) Frequent Assessment/Monitoring of Student Progress, 7) Emphasis on Basic Skills, 8) Maximum Opportunities for Learning, 9) Parent/Community Involvement, 10) Strong Professional Development, and 11) Teacher Involvement in Decision Making.

The second step was to begin to develop surveys to assess the 11 characteristics. Surveys found in the literature were reviewed and items were developed under the 11 characteristics. Original items were developed and other items were modified to fit our set of characteristics. The committee reviewed the items, revised the items, and placed them in a survey format for teacher, parent, and student instruments.

Next, the effective schools instruments were pilot tested to determine their psychometric properties. When appropriate, corrections were made. The initial teacher, parent and student instruments contained 68, 43, and 37 items respectively. After pilot testing the instruments in six elementary schools, three middle schools and one high school, a stringent data analysis was conducted of the results. Each effective schools characteristic was defined as a group of questionnaire items. Means of these items were computed and represented the characteristics in subsequent analyses. Pearson correlation coefficients were computed between the characteristics. Reliability coefficients (Cronbach's Alpha) were computed for each characteristic and for each instrument.

Only one characteristic on the teacher instrument was found to have more than one factor. The problem was traced to one item that had a negative correlation to the other indicators, and was eliminated. Having done this,the 67-item revised instrument had an overall reliability of .985, one factor for each of the 11 characteristics, and reliability coefficients for each scale ranging from .80 to.93 (see Table 1).

The first parent instrument contained 43 items and addressed nine characteristics. As with the teacher instrument, a bad item was eliminated resulting in a 42-item instrument. Strong professional development and teacher involvement in decision making were eliminated from the list of 11 characteristics on the teacher instrument because parents could not competently respond to the items. A similar analysis resulted in an overall reliability coefficient of .971, single factors for each characteristic and reliability coefficients for each characteristic that ranged from .51 to .88 and nine factors that explained all of the variance. The student instrument was found to be unreliable regarding the instructional leadership and clear and focused mission characteristics. The elimination of the four items relating to these characteristics resulted in a 33-item final instrument.

Use of the Instruments

During the winter of 1990-91, a more extensive study was conducted and the following number of instruments were collected and analyzed: teacher (1,474), parent (5,889) and student (8,397). Simultaneously, Spanish versions were developed of the parent and student instruments and pilot tested. More complete results are found in the 8"X14" table.

Sixty schools opted to use the instruments as a primary data source for strategic planning. The Testing and Program Evaluation section produced and distributed the instruments to schools for gathering internal data. Reports were provided to each school. The reports contained means for each indicator and each characteristic as well as district norms. Instructions for use of the results were provided along with cautions against misinterpretations of the results. Comparisons between schools were strictly avoided. Feedback from schools has been very positive. Parents were especially appreciative for being able to provide input into the planning process.

Plans were developed for our staff to work with planning staff and instructional administrators to conduct workshops during 1991-92 in the development of school improvement plans based on school effectiveness questionnaire findings. Teachers, principals, parents and students will jointly develop the school improvement plans with district level staff serving as advisors. Strong interest in the use of the instruments by K-12 schools, vocational schools, some exceptional schools, district instructional personnel and the superintendent has resulted in the institutionalization of the instruments in the district planning process.

The copyrighted instruments are currently undergoing evaluation by a major publishing firm so use of the instruments without permission is not recommended. If additional information is needed, please call Dr. Freeman Coney III, (408) 849-3200, extension 2946.

Table 1

Results of Factor Analysis of Two Effective Schools Questionnaires

Characteristics	Teacher (357) n of Items	Teacher (357) n of Factors	Teacher (357) r*	Parent (101) n of Items	Parent (101) n of Factors	Parent (101) r
1. Instructional Leadership	8	1	.93	6	1	.81
2. Clear and Focused Mission	7	1	.91	4	1	.75
3. Safe and Orderly Environment	5	1	.80	5	1	.78
4. Positive School Climate	7	1	.89	6	1	.86
5. High Expectations	5	1	.91	3	1	.81
6. Assessment Monitoring	6	1	.93	4	1	.81
7. Emphasis on Basic Skills	5	1	.91	2	1	.51
8. Maximum Opportunities for Learning	6	1	.89	5	1	.79
9. Parent/Community Involvement	6	1	.89	7	1	.88
10. Strong Professional Development	7	1	.93	–	–	–
11. Teacher Involvement in Decision Making	5	1	.92	–	–	–
Entire Instrument	67	8	.985	42	9	.971

* = Cronbach's Alpha, a standard reliability coefficient

OCPS 1990-91 School Effectiveness Questionnaires Data Analysis Results

Characteristics	English Version												Spanish Version							
	Teacher (1,474)				Parent (5,889)				Student (8,397)				Parent(229)				Student (210)			
	n of Items	n of Factors	r*	%V**	n of Items	n of Factors	r*	%V**	n of Items	n of Factors	r*	%V**	n of Items	n of Factors	r*	%V**	n of Items	n of Factors	r*	%V**
1. Instructional Leadership	8	1	.92	64.1	6	1	.84	54.9	–	–	–	–	6	1	.77	47.1	–	–	–	–
2. Clear and Focused Mission	7	1	.89	60.3	4	1	.80	66.5	–	–	–	–	4	1	.66	50.0	–	–	–	–
3. Safe and Orderly Environment	5	1	.81	54.8	5	1	.82	60.9	8	1	.80	41.0	5	1	.75	49.7	8	1	.74	35.6
4. Positive School Climate	7	1	.89	57.2	6	1	.89	64.3	7	1	.84	50.2	6	1	.80	51.5	7	1	.75	41.4
5. High Expectations	5	1	.90	72.3	3	1	.81	72.5	3	1	.81	73.7	3	1	.67	60.6	3	1	.72	64.3
6. Frequent Assessment/ Monitoring of Student Achievement	6	1	.91	68.6	4	1	.84	70.6	4	1	.75	58.7	4	2	.68	77.8	4	1	.55	44.7
7. Emphasis on Basic Skills	5	1	.89	69.6	2	1	.72	78.9	3	1	.68	58.7	2	1	.57	69.8	3	1	.57	54.1
8. Maximum Opportunities for Learning	6	1	.87	59.1	5	1	.83	58.8	6	1	.79	46.8	5	1	.79	54.6	6	1	.64	37.3
9. Parent/Community Involvement	6	1	.88	63.3	7	1	.87	56.9	2	1	.61	72.4	7	2	.84	65.2	2	1	.31	59.2
10. Strong Professional Development	7	1	.93	69.4	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
11. Teacher Involvement in Decision Making	5	1	.92	75.2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Entire Instrument	67	7	.984	64.8	42	5	.972	60.8	33	5	.945	51.8	42	9	.954	64.8	33	10	.917	64.6

* = Cronbach's Alpha, for standardized variables (a reliability coefficient)
** = Percent of variance explained by one factor